

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

JENNIFER S. FISCHMAN,

Plaintiff,

v.

mitsubishi chemical holdings
america, inc. et al.

Defendants.

CIVIL ACTION NO.: 18-CV-08188

**MEMORANDUM OF LAW IN SUPPORT OF PLAINTIFF’S MOTION IN LIMINE
TO EXCLUDE THE REPORT AND TESTIMONY OF GERALD LAPORTE**

VALLI KANE & VAGNINI LLP

Sara Wyn Kane
Robert J. Valli, Jr.
Matthew L. Berman

600 Old Country Road, Suite 519
Garden City, New York 11530
Tel: (516) 203-7180
Fax: (516) 706-0248
Attorneys for Plaintiff

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Introduction

Plaintiff Jennifer S. Fischman (“Ms. Fischman”), by and through her attorneys Valli Kane & Vagnini LLP, submits this memorandum of law in support of Plaintiff’s Motion in Limine to exclude the report and anticipated testimony of Gerald LaPorte.

The substantive arguments in this memorandum were previously submitted in opposition to a motion for sanctions dated October 22, 2021 (the “Motion,” ECF 117-119) filed by defendants Mitsubishi Chemical Holdings America, Inc. (“MCHA”), Mitsubishi Chemical Holdings Corporation (“MCHC”), Nicholas Oliva (“Mr. Oliva”) and Donna Costa (“Ms. Costa”) (collectively, “Defendants”). Defendants’ motion sought sanctions, including dismissal of this case and an award of attorneys’ fees, against Ms. Fischman because, based on the testimony of putative Forensic Ink Dating Chemist Gerald M. LaPorte (“LaPorte”), Defendants allege Plaintiff produced a falsified document during discovery and then, allegedly, committed perjury when she testified as to its provenance. *See generally*, Memorandum of Law in Support of Defendants’ Motion for Sanctions (“Def. Mem.,” ECF 119).

On August 24, 2022, the Court denied Defendants’ request for dismissal and tabled their request for attorneys’ fees until after summary judgment or trial (*see* ECF Dkt. No 129). The Court’s August 24 Decision Ordered the parties to file a proposed briefing schedule for summary judgment and *Daubert* motions, and subsequently set November 1, 2022 as the deadline for such submissions. *See* ECF Dkt. No. 131.

Plaintiff has now restyled her arguments challenging the admission of Mr. LaPorte’s report and testimony as the instant Motion in Limine to exclude his testimony, as we previously indicated we would in our opposition to Defendants’ motion for sanctions (*see* ECF No. 120, n.1). The instant submission is in accordance with the Court’s scheduling Order, and is premised upon the arguments contained herein and the material presented in the Declaration of Matthew L. Berman,

previously filed on November 23, 2021 (“Berman Decl.,” ECF Dkt No. 121), and the exhibits thereto, which were submitted in opposition to Defendants’ motion for sanctions.

As explained in our prior submissions to the Court, described above, LaPorte prepared a putative “expert” report under FRCP 26(a)(2)(b) (the “LaPorte Report,” ECF 118-4), opining, in pertinent part:

(a) it is “highly probable” that the handwritten entries on both sides of the [Subject Document]¹ were not executed on the purported date of March 1, 2016. Instead, the written entries were executed within two (2) years before I performed my testing, which would have been sometime after July 31, 2019;

(b) the [Subject Document] was altered by adding the date “3/1/16” to the document using a different ink than what was used for the handwritten notes appearing on both sides of the document;

(c) there are two (2) handwritten entries added to Q12 (000835) ... using the same formulation of ink that was used for the handwritten notes on Q8.

LaPorte Report at 7-8 (footnotes omitted); *id.* at 23-24.

LaPorte’s conclusion rests upon his theory that: (1) an organic compound in the ink, Phenoxyethanol (“2-PE”), evaporates over time as ink dries, ultimately stabilizing after about two years; and (2) measuring the ratio of 2-PE left over in an artificially heated ink sample – compared to an unheated sample – allows an investigator to determine the age of the ink. According to LaPorte, if the ratio of the absolute amount of 2-PE in the heated and unheated samples shows that the heated sample has at least twenty-five percent (25%) less 2-PE (*i.e.* the heated sample has lost 2-PE greater or equal to 25% of the 2-PE in the untreated sample), the ink is less than two years old. Deposition of Gerald M. LaPorte (“LaPorte Tr.”), 61:20 – 63:2; 98:2 – 100:5.² Here, LaPorte claims that a significant amount of 2-PE evaporated from heated ink samples he took from the

¹ The Subject Document is referenced in the Motion as the “Falsified Note” and is referred to in the LaPorte Report as document Q8 (bates stamped Fischman 000830-31).

² The LaPorte deposition is attached as Exhibit 8 to the Berman Decl.

Subject Document, such that the heated sample had lost more than 25% of the 2-PE contained in the unheated sample, making the Subject Document less than two (2) years old. LaPorte Report, at 7.

As set forth in section II, below, LaPorte's Report is categorically barred under Federal Rule of Evidence ("F.R.E.") 608(b). But even if it were not, it would still be inadmissible. LaPorte's theory and methodology are merely *ipse dixit* and do not meet even the bare minimum standards required for consideration by the Court under F.R.E. 702 and relevant case law, including *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993) ("*Daubert*"), *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999) ("*Kumho Tire*"), and their progeny.

Instead, LaPorte bases his opinions upon theory and techniques that have not been adequately tested, have high potential for error, and have not been generally accepted within a relevant scientific or other expert community. LaPorte's theory is flat-out contradicted by others in his putative field and, during his deposition, he admitted that he disagrees with most other forensic professionals on numerous matters that would affect his results. Moreover, even if LaPorte's highly dubious theory did have any scientific merit – and it does not – he has failed to adhere to the limitations on its use that even he admits apply. Most notably, LaPorte concedes that “there are factors that may affect the concentration of 2-PE prior to testing such as storage in extreme cold, which slows the ink drying process.”³ Yet LaPorte completely failed to consider the impact of storage conditions on the Subject Document, which Ms. Fischman testified had been stored in the back of a desk drawer with other papers, and thus was not exposed to ordinary air circulation.⁴ Simply put, a “wet” document does not “dry” properly in an enclosed space such as

³ See LaPorte Report at 17.

⁴ Deposition of Jennifer Fischman dated June 28, 2021, at 284:16 - 21 (Exh 9 to Berman Decl.) (“On that night I went home and I wrote myself a note on a legal pad and I stuffed it in a draw and hoped to forget about it.”).

a drawer or stack of papers. LaPorte also failed to account for potential contamination with 2-PE from other sources, such as cosmetics, perfume, or other writings kept in the drawer with the Subject Document, or to take steps to ensure his work was free of sampling or measurement errors. Accordingly, for the reasons set forth below, Defendants' Motion should be denied in its entirety.

Argument

As set forth below, the legal standards governing expert witnesses require exclusion of Mr. LaPorte's report and testimony in their entirety.

I. Applicable Legal Standards

Expert witness testimony must satisfy the requirements of F.R.E. 401, 402, 403, and 407. Generally, under F.R.E. 402, only "relevant" evidence is admissible. F.R.E. 402. Evidence is relevant if "it has any tendency to make a fact more or less probable than it would be without the evidence . . . and the fact is of consequence in determining the action." F.R.E. 401. However, even relevant evidence may be excluded by the Court "if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence." F.R.E. 403. The Court has "broad discretion to balance probative value against possible prejudice under Rule 403. *United States v. Bermudez*, 529 F.3d 158, 161 (2d Cir. 2008).

Expert opinion testimony is also subject to F.R.E. 702, which allows expert opinion testimony only if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

F.R.E. 702.

The trial judge is to act as a “gatekeeper with respect to expert testimony to ensure that such testimony is both relevant and reliable. *Daubert*, 509 U.S. at 589-91. This rule applies not only to scientific knowledge, but also to technical or other specialized knowledge under *Kumho Tire*. *Kumho*, 526 U.S. at 141. “As gatekeeper, the district court has significant discretion to consider numerous factors” in applying the rule. *N.K. v. Abbott Labs.*, 731 Fed. Appx. 24, 26 (2018). The factors that govern admissibility of expert testimony under *Daubert* and *Kumho Tire* are now well-settled:

Daubert sets forth specific factors, such as “testing, peer review, error rates, and ‘acceptability’ in the relevant scientific community,” which the trial court may consider in determining reliability. 509 U.S. at 595. The *Daubert* test is flexible, however, and this “list of specific factors neither necessarily nor exclusively applies to all experts or in every case.” *Kumho*, 526 U.S. at 141. Expert testimony is reliable where it has “a traceable, analytical basis in objective fact.” *Bragdon v. Abbott*, 524 U.S. 624, 653 (1998) (citing *General Elec. Co. v. Joiner*, 522 U.S. 136 (1997)). “[O]pinion evidence that is connected to existing data only by the *ipse dixit* of the expert” should not be admitted. *Kumho*, 526 U.S. at 157 (citing *Joiner*, 522 U.S. at 146). It is within the trial court’s discretion to determine what are reasonable criteria to be used to determine reliability in a particular case and whether the proposed testimony meets those criteria. *See Kumho*, 526 U.S. at 158 (decision to exclude expert evidence within trial court’s discretion where based on “Failure to satisfy either *Daubert*’s factors or any other set of reasonable reliability criteria).

Roniger v McCall, 2000 WL 1191078, *2 (S.D.N.Y. Aug. 22, 2000).

As explained below, Mr. LaPorte’s report and anticipated testimony run afoul of several of the requirements of these Rules. The Court should thus exclude his report from its consideration and should preclude his anticipated testimony concerning the opinions expressed therein.

II. LaPorte’s Opinions Are Inadmissible

A Defendants’ Use of Extrinsic Evidence of Credibility is Barred

As a threshold matter, LaPorte’s report and testimony are inadmissible under F.R.E. 608(b), which provides, in pertinent part:

Specific instances of the conduct of a witness, for the purpose of attacking or supporting the witness' character for truthfulness, other than conviction of a crime as provided in Rule 609, may not be proved by extrinsic evidence.

F.R.E. 608(b). "While courts have discretion to permit inquiry into instances of conduct on cross-examination, they are **categorically barred** from admitting extrinsic evidence of such instances."

U.S. v. Nelson, 365 F. Supp.2d 381, 386 (S.D.N.Y. 2005) (emphasis added). The *only* justification in support of sanctions advanced by Defendants is that Ms. Fischman was supposedly dishonest in producing the Subject Document to Defendants during discovery and in responding to their questions about it in her deposition testimony, and the only evidence they offer in support of their claim that she was dishonest is extrinsic evidence provided by LaPorte, which is barred under F.R.E. 608(b). *See Zhang v. Zhang*, 816 Fed.Appx. 525, 530 (2d Cir. 2020) (excluding Chinese language expert's testimony used to show a witness testified falsely). Yet, there is no evidence within the record of Ms. Fischman ever being dishonest or untrustworthy in her entire career. To the contrary, throughout her tenure, she was consistently lauded in her performance reviews as one who communicates honestly and one who had earned the "trust and respect both inside and outside MCHA." With no intrinsic evidence and without any extrinsic evidence that can be admitted into the record, the Motion must be denied.

B The Federal Rules Governing Expert Testimony Bar LaPorte's Opinions

Generally, under F.R.E. 402, only "relevant" evidence is admissible. Evidence is relevant if "it has any tendency to make a fact more or less probable than it would be without the evidence . . . and the fact is of consequence in determining the action." F.R.E. 401. However, even relevant evidence may be excluded by the Court "if its probative value is substantially outweighed by a danger of one or more of the following: unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence." F.R.E. 403. The Court has "broad discretion to balance probative value against possible prejudice under Rule 403. *United*

States v. Bermudez, 529 F.3d 158, 161 (2d Cir. 2008). Where, as here, the finder of fact will be relying primarily upon the testimony of the parties themselves and assessments of credibility, the testimony of LaPorte – which claims Ms. Fischman fabricated corroborating evidence – is overwhelmingly and unfairly prejudicial.

Expert opinion testimony is also subject to F.R.E. 702, which allows expert opinion testimony only if:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert has reliably applied the principles and methods to the facts of the case.

F.R.E. 702.

The *proponent* of expert testimony has the burden of establishing by a preponderance of the evidence that the admissibility requirements of the Rule are satisfied. *See Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 593 n. 10 (1993). Defendants cannot meet that burden here.

1 There is No Relevant Field of Settled Technical Knowledge

Nobel-prize winning physicist Richard Feynman famously wrote "Science is the Belief in the Ignorance of the Experts."⁵ Here, LaPorte's testimony makes clear that the science of ink dating is far from settled, there are no objective standards, and that he used methods prone to error that do not allow the trier of fact to conclude with any reasonable certainty – let alone by clear and convincing evidence – that the Subject Document is less than two years old. LaPorte's Testimony

⁵ <https://ricochet.com/1018477/science-is-the-belief-in-the-ignorance-of-experts/>

is not even remotely close to the “clear and convincing” evidence that Defendants’ hold it out to be, and to credit it requires this Court to disregard the requirements of rigorous scientific inquiry.

Forensic ink dating is a relatively immature investigative technique, practiced by only a very small group of people. Most are forensic crime lab investigators working exclusively for law enforcement agencies who are not available for hire by the private sector. *See* LaPorte Tr. 128:10 – 128:24 (describing that he performed research for those agencies). Indeed, with the retirement of Dr. Valery Aginsky, the chief proponent of the Gas Chromatography-Mass Spectrometry (“GC/MS”) methodology used by LaPorte to opine on the age of the Subject Document, even LaPorte is unable to identify any testifying expert in the field of forensic ink dating whose work has withstood a *Daubert* challenge in federal court. LaPorte Tr. 138:16 – 139:6 (LaPorte confirms “there are a very limited number of testifying experts on the subject of ink dating.”); 175:2 – 176:25 (LaPorte unable to identify other testifying forensic ink dating experts). Of the approximately eighty (80) federal cases listed in LaPorte’s C.V., LaPorte was subjected to only one *Daubert* challenge, and his report in that case was withdrawn, ostensibly because the applicability of his GC-MS analysis under the circumstances of that case was discredited.⁶

2 There is No Scientific or other Consensus

Despite the small size of their community, *there is not even a general consensus* in the field of forensics on the reliability or appropriate methodology for ascertaining the age of documents based upon ink chemistry. “To present date, no two laboratories that do ink dating via solvent analysis use the same method.” Weyerman, Almog, Bugler and Cantu, FORENSIC SCIENCE

⁶ *See Ceglia v. Zuckerberg*, 2012 WL 12995636, *6 (W.D.N.Y. June 28, 2012) (remarking on *United States v. Rago*, Docket No. 08–CR–10268–WGY (D. Mass.), a criminal action in which the Government, following an examination of LaPorte to determine whether LaPorte’s PE test satisfied the requirements for expert testimony set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), withdrew LaPorte as a witness.

INTERNATIONAL (2011). Berman Decl. Exh. 10. When asked about this publication during his deposition, LaPorte admitted that “there might be some differences – some variations in the methodology.... I can’t say for sure. I don’t know what every lab is doing. I know what I do and I know that I validated my own procedures and I’ve used – I know there are other ink chemists that – other test finding ink chemists that use something similar.” LaPorte 174:3 – 25.

LaPorte’s testimony confirms that there is no consensus even within this limited field. LaPorte himself disagrees with the methodologies, techniques and conclusions of other prominent forensic ink dating practitioners, including those of authors he considers authoritative. For instance, in a paper entitled *Minimum Requirements for Application of Ink Dating Methods Based on Solvent Analysis in Case Work*, authored by Dr. Cantu, Dr. Aginsky, and Dr. Weyerman, the authors conclude that **“The time span that can be considered to date inks through solvent analysis using GC/MS is seriously questioned by the forensic community.”** See Berman Decl, Exh. 10 (emphasis added). When questioned on this statement, LaPorte disagreed, even though: (i) LaPorte himself trained under Dr. Cantu; (ii) LaPorte described Dr. Aginsky as having made the “initial finding” about the use of 2-PE in ink dating; and (iii) LaPorte knows Weyerman “very well” but claims “she doesn’t do case work so she’s used to working in a research environment.” (apparently disregarding the title of the paper, which expressly states that it relates to case work rather than research work). LaPorte Tr. 134:8 – 135:17. LaPorte eventually relented and agreed with a portion of the article’s conclusion: “But what I would agree with is that the timeframes of using three months, six months, nine months, twelve months, eighteen months, there’s – I would say there’s a fair amount of contention with that.” LaPorte Tr. 134:8 – 136:12. Yet he sharply disagreed with the very next line in the paper, discussing findings by authors Brunelle and Crawford stating that “ink dating technology which is based on GC/MS analysis **cannot be used**

to date inks over six months old and Bugler et al recommended to analyze ink with a maximum age of three to four months.”⁷ LaPorte Tr. at 136:13 – 137:1. Similarly, in her 2005 doctoral dissertation, LaPorte’s colleague Dr. Weyerman analyzed the principles and methods used by LaPorte here in the context of the requirements of expert testimony under F.R.E. 702 and *Daubert*, concluding:

According to the court standards and scientific criteria exposed above, **no ink dating method fulfills the requirement for regulatory use in expert testimony yet**. Future works should therefore focus not only on scientific standards, but also on the law objectives.

Berman Decl., Exh 11, at 166 (<https://d-nb.info/978891155/34>) (Weyerman 2005 Dissertation) (emphasis added). Tellingly, Weyerman also stated: “**three different studies ... have indicated that a dating of ink by this method becomes impossible after a few days** [Fortini, 2000; Lociciro et al., 2004; Andrasko, 2003 b].” *Id.* at 32. Nothing since has been published that has established clear standards for forensic ink dating as confirmed by, for example, an April 2015 article published in Forensic Science International that further discredited LaPorte’s theory and methods:

For more than a decade scientists tried to develop methods capable of dating ink by monitoring the loss of phenoxyethanol (PE) over time. While many methods were proposed in the literature, few were really used to solve practical cases and they still **raise much concern within the scientific community**. In fact, due to the complexity of ink drying processes it is **particularly difficult to find a reliable ageing parameter to reproducibly follow ink ageing**. Moreover, systematic experiments are required in order to evaluate how different factors actually influence the results over time. Therefore, this work aimed at evaluating the capacity of four different ageing parameters to reliably follow ink ageing over time: (1) the quantity of solvent PE in an ink line, (2) the relative peak area (RPA) normalising the PE results using stable volatile compounds present in the ink formulation, (3) the solvent loss ratio (R%) calculated from PE results obtained by the analyses of naturally and artificially aged samples, (4) a modified solvent loss ratio version (R%*) calculated from RPA results. After the determination of the limits of reliable measurements of the analytical method, the repeatability of the different ageing parameters was evaluated over time, as well as the influence of ink

⁷ Attached as Berman Decl. Exh. 10 (emphasis added).

composition, writing pressure and storage conditions on the results. **Surprisingly, our results showed that R% was not the most reliable parameter, as it showed the highest standard deviation.** Discussion of the results in an ink dating perspective suggests that other proposed parameters, such as RPA values, may be more adequate to follow ink ageing over time.

Koenig, Magnolon & Weyerman, *A comparative study of ballpoint ink ageing parameters using GC/MS*, FORENSIC SCIENCE INTERNATIONAL. See Berman Decl. Exh. 12 (emphasis added). LaPorte generally disagreed with this paper (LaPorte 166:11 – 167:11); however, he does agree with the paper’s statement that “The shape of the curvature of an ink stroke can impact the amount of [PE-2] that’s lifted from the paper.” LaPorte 127:16 – 128:9. He also agrees that pen flow rates impact the results, at least with respect to absolute measurements, making it important that paired samples are taken from the same area. LaPorte 130:7 – 19. But at the same time, he disagreed with certain other conclusions, including that solvent diffuses differently around curved letters such as the letter “O” and that higher quantities of solvents may be found in letters with dense lines compared to straight lines of the same length. LaPorte 129:3 – 130:6.

Critically, the paper finds that “Surprisingly, the **variation of [solvent loss ratio] values increased over time**, while PE quantities in the natural and heated samples (used to calculate [solvent loss ratio]) showed significantly lower variations.... **Thus, the calculation of [solvent loss ratio] value may yield propagation of the uncertainty** because two different samples were used.” *Id.* at 97 (emphasis added). LaPorte himself admitted that solvent loss ratio does not decrease uniformly with the age of a document, calling his entire theory into question. LaPorte Tr. 150:19 – 23. Importantly, the authors also state that: “the influence of the storage conditions was complex and difficult to characterize” (*id.* at 102) and “The solvent loss ratios were also influenced by the storage conditions . . . the obtained values as well as the ageing dynamics were significantly different.” (*id.* at 103).

Similarly, a 2018 paper in SCIENCE AND JUSTICE, by Koenig and Weyerman, entitled *Ink Dating Part II – Interpretation of Results in a Legal Perspective*, reports obtaining **false positives when analyzing 2-PE loss ratios with two values of 38 and 35 percent, for two different seven-year old samples**. Berman Decl. Exh. 13, at §3.2. LaPorte was not familiar with that paper and stated that without more information, he could not agree or disagree. LaPorte Tr. 169:23 – 171:13.

Likewise, a 2015 paper published by forensic scientists Patricia Giebink, Erich Speckin, and Jason Harner entitled *The Dating of Writing Inks Through 2-Phenoxyethanol* concludes that “**long term behavior of solvent evaporation isn’t well known or understood.**” Berman Decl., at Exh. 14. LaPorte claimed during his deposition that these authorities in his field are “not qualified.” LaPorte Tr. 138:3 – 19. Ironically, LaPorte claims that he wouldn’t draw any conclusions from their paper because the data included is comprised of “absolute measurements.” LaPorte Tr. at 138:20 – 139:13. In other words, the authors include their underlying data, rather than just reporting the Solvent Loss Ratios (“SLRs”) of untreated and heated samples; in contrast, LaPorte’s own report fails to disclose absolute measurements or *any* of his underlying data.

LaPorte also disagreed with the conclusions in a paper by Carina Maria Bello De Carvalho (Berman Decl., Exh 15), which said, in relation to an experiment’s testing the influence of the kind of paper on 2-PE concentrations, “it can be concluded that the kind of paper exerts importance in the 2-PE quantification.” LaPorte disagreed that the paper’s conclusions were applicable to his methodology because, in part, he didn’t know where they got their paper, how old it was, whether it was fresh out of a package, or where it was manufactured and whether that place has print ink also or if it’s coming through the paper’s wrapping. LaPorte Tr. 144:5 – 148:3 (“What I’m saying is I don’t know if concept one is actually – you know, if that’s feasible to begin with.”). Of course, LaPorte doesn’t know any of this about the Subject Document’s paper, either.

LaPorte also disagreed with a 2018 paper in the EGYPTIAN JOURNAL OF CHEMISTRY, authored by El-Sabbah, Gomaa, El-Hefny and Al-Hawary, entitled *Dating the Ballpoint Pen Ink Using Gas Chromatography-Mass Spectrometry Techniques* (Berman Decl. Exh. 16) which demonstrates that for **certain inks, the SLR ratio actually gets smaller as the document ages, which directly contradicts LaPorte's theory.** LaPorte Tr. 161:3 – 13. LaPorte couldn't recall ever reviewing this paper prior to his deposition. LaPorte Tr. 162:12 – 15. LaPorte disagreed with the authors' conclusions because, he claimed, the paper was published by members of the agriculture department of an Egyptian University (and because their technique obtained samples using scalpels, not hole punches, which reflects further disagreement in the field concerning proper methodology). LaPorte Tr. 152:23 – 158:8. Nevermind that Egyptian scholars have an obvious interest in dating antiquities, including documents.

LaPorte also claimed that his heating of samples at 70 degrees Celcius was superior to the 80 degrees used in a paper published by Dr. Valerie Aginsky entitled *Determination of the Age of Ballpoint Pen Ink by Gas and Densitometric Thin-layer Chromatography*. LaPorte Tr. at 123:22 – 126:6. He disagreed with the work of Dr. Weyermann, in her paper entitled *Potential of Artificial Aging for Modeling of Natural Aging Processes of Ballpoint Ink*, which stated that “no model can be generalized to all inks stored under different conditions and on different papers.” LaPorte Tr. at 126:25 – 127:15.

It is clear from LaPorte's own testimony that there is no general consensus in the relevant scientific field on the reliability of ink dating, nor a methodology for ascertaining the age of documents based upon their ink chemistry, let alone generally accepted standards for the use of GC/MS analysis for the purpose of ink dating.

3 LaPorte's Testimony Has No Objective Basis

LaPorte's opinion is based purely on *conjecture* rather than *empirical evidence*. For example, LaPorte testified that: "It is highly probable that the handwritten entries on both sides of [the Subject Document] were not executed on the purported date of March 1, 2016" and when he was questioned on what he meant by "highly probable," LaPorte admitted that his use of those words was subjectively based only on "a standard for *terminology* for expressing conclusions" rather than any objective empirical standards for determining certainty or probability. *See* LaPorte Tr. at 16:11 – 19:12. LaPorte clarified that he used the phrase "highly probable" to express *his view of evidence* that is "very persuasive" and where "the examiner is virtually certain but there is some factor that precludes absolute certainty." Yet, there is not a single reference to any objective standard by which he makes his conclusions other than the reference to a dictionary of terms. LaPorte Tr. at 18:11 – 20:10. .

LaPorte testified that when one measures the amount of 2-PE left in a heated sample and compares it to an unheated sample, a SLR of twenty-five percent (25%) or more is necessary to conclude that an ink is less than two years old. LaPorte 109:5 – 112:16. He testified in the *Grosvenor* matter (listed in his report), where he was retained as an expert witness for a case in the United Kingdom, that the SLR of the document at issue was eight percent (8%) and that because the SLR was less than ten percent (10%), he couldn't say with a "high degree of probability" that the ink was less than two years old. LaPorte 110:5 – 12. Yet when questioned about why his report here referenced a ten percent (10%) benchmark SLR rather than his twenty five percent (25%) standard, LaPorte couldn't explain how his shifting SLR goalposts related to any ascertainable scientific standard. LaPorte 111:6 – 13 ("it all depends at least in part on the amount of [2-PE] and that would depend on the confidence or the type of conclusion that you're going to draw... So that would be based on experience and that's difficult to put because the

method that I use may be more – the way I extract the ink and the method that I use, I’m accustomed to what I would consider to be a very high level.”); LaPorte 116:17 – 118:8 (“there’s consistency with my *internal* standard”) (emphasis added).

Incredibly, when asked whether he still stood by his statement in the *Grosvenor* matter that the established threshold level of 25% must be exceeded to conclude with strong confidence that a signature was executed within the past two years, LaPorte said: “Yes. Keep in mind that in the UK we generally don’t use our same conclusion area [sic] scale as we do here. But, yes, so that would be very strong evidence to be able to say above 25 percent.” LaPorte Tr. 111:19-13. Obviously, the degree of certainty a scientist has in a test result shouldn’t change when one crosses an international border.

When pressed during his deposition, LaPorte admitted that his conclusion that the Subject Document is less than two years old is based *only upon one publication* in his field which came to the conclusion that a 25% SLR is reliable, which was authored by Gaudreau and Brazeau. LaPorte Tr. 172:18 – 24. LaPorte testified that no other study tested or validated Gaudreau and Brazeau’s conclusion. LaPorte Tr. 172:18 – 173:24. LaPorte also claimed that he was “not aware of any publication that has debunked that idea.” But in the words of Carl Sagan: “absence of evidence is not evidence of absence!” Gaudreau’s work is not deemed reliable in the scientific community and has been rejected “out of hand” by a Canadian Tribunal.⁸ LaPorte cannot credibly claim his science is reliable based upon only one published paper that has never been tested or validated, while simultaneously rejecting the rest of the work in his field.

⁸ See *Gallo v. Government of Canada*, April 8, 2011, at ¶¶79-82, 89 (“In summary, ink dating must be approached with caution. Only methods that have been thoroughly researched and subjected to multiple blind tests (for reproducibility) will be accepted in the forensic document community.”), Berman Decl. Exh. 17.

4 LaPorte's Testimony is not Based Upon Reliable Methods

Even if the use of the GC/MS was a methodology that practitioners could agree upon (and it is not) LaPorte still failed to take into account factors he admits affect the reliability of his results, including the number and processing of samples, composition of the paper, identification and formulation of ink, storage conditions and the possibility of contamination. Instead of relying on multiple other researchers who have published numerous peer reviewed scientific papers on the appropriate methodology, in his report, LaPorte only references the Scientific Working Group for Forensic Document Examiners ("SWGDOC"). *See* LaPorte Report, at ¶¶ 12, 21, 25, 31.

LaPorte's testimony confirms that his conclusion about the age of the Subject Document is not based on any generally accepted standards for forensic ink dating. LaPorte Tr. at 48:22 - 49:16 (there's no standard for how many samples to take); LaPorte Tr. at 52:4 – 53:17 (SWGDOC, the group that drafts the standards for conducting the GC-MS analysis that LaPorte's opinion relies upon has published standards with respect to explosives, drugs, miscellaneous materials, pharmaceuticals, etc. but hasn't published any standard for GC/MS analysis of *inks*, and no Standards Development Organization promulgates such standards for GC/MS analysis of inks).⁹

When questioned on his own methods, it was clear that he didn't take sufficient steps to ensure the reliability of his testing methods. For instance, during his deposition, LaPorte couldn't say how many sample plugs he took from the Subject Document, even after consulting his notes. LaPorte Tr. at 43:11 – 21. LaPorte testified that he took two sets of between three and five sample plugs from the Subject Document and put all of the samples into the *same vial* for testing. LaPorte Tr. 47:21 – 47:25. His testimony was that he took only one set of sample plugs from the front side

⁹ The SWGDOC standards are available at <https://www.swgdoc.org/index.php/standards/published-standards>. The SWGDOC standard for forensic ink writing *comparison* expressly states that the question of "whether ink is as old as it purports to be" is "beyond the scope of this standard." *See* Berman Decl. Exh. 18.

of the one-page Subject Document, and one set of sample plugs from the back side of the Subject Document, that he tested the ratio of 2-PE in a heated and unheated sample from each set, deriving a “Solvent Loss Ratio,” and combined the results of the front and back of the Subject Document (33% and 28%) to come up with an average solvent loss ratio that LaPorte rounded up to thirty-one percent (31%). LaPorte 113:22 –115: 15.

When he was asked what determines whether it takes six months or eighteen months or some other period of time for the ink to harden, he said it could depend on the formulation of the ink, how the document was stored, and the type of paper. LaPorte Tr. at 24:24 – 25:19; 148:8 – 21 (“Are there differences in paper? Absolutely, I’ve already – you know, I’ve already testified to that, that there are going to be differences in paper and how inks dry on those papers.”); *see also* LaPorte Tr. 131:23 – 132:25 (whether ink is on recycled or non-recycled paper matters, and comparing samples from one page to another means “you have to be careful in interpreting the solvent loss ratios.”).¹⁰ LaPorte didn’t know whether either the Subject Document, or another document (Q12) with matching ink that he compared to the Subject Document, were on recycled or non-recycled paper. LaPorte Tr. 142:19 – 143:5. He acknowledged that these factors could impact the results of his analyses. *Id.* at 146:9 – 15.

In a FORENSIC SCIENCE INTERNATIONAL JOURNAL paper entitled, *Minimum Requirements for Application of Ink Dating Methods Based on Solvent Analysis In Casework*, C. Weyerman, J. Almog , J. Bugler, A. Cantu, write that the “Aging processes of ink follow complex pathways that are considerably influenced by several factors other than time... (iii) storage conditions

¹⁰ This point undermines LaPorte’s comparison of the ink in the Subject Document to the matching ink in another document, “Q12” (LaPorte Report at ¶20), which he found to have a 19% average SLR (i.e., below his threshold of high confidence for determining that the document was created within the past two years) based on measurements of 20% and 18%. Nevertheless, based on purely anecdotal evidence and in contradiction of his prior testimony in *Grosvenor*, *supra*, he stated that the result is “not consistent with being executed approximately 4 ½ years ago.” *Id.*

(temperature, light, air flux, humidity, neighboring material, etc.),” Despite the fact that LaPorte acknowledges the storage conditions can vary the SLR, he did not account for the storage conditions, or neighboring materials such as perfume, cosmetics, or other potential contaminants affecting 2-PE the Subject Document. LaPorte Tr. at 102:14 – 104:14 (depending how the document was stored, you might get variation in the solvent loss ratio); 149:24 – 150:18 (contamination from common household products such as perfumes that contain 2-PE is possible)¹¹ 165:15 – 166:15 (LaPorte acknowledged that 2-PE is a volatile organic compound that volatiles quickly once it hits the air, and yet when asked about whether 2-PE could contaminate a document contained within in a closed desk drawer, LaPorte admitted that he wasn’t aware of any studies assessing the absorption of PE-2 by environmental contamination).

Despite acknowledging the importance of knowing the type of ink used and its composition (“if inks have different formulations, they may dry at different rates.” LaPorte Tr. 103:5 – 20), LaPorte could not identify what inks were present on the Subject Document. LaPorte Tr. 37:2 – 21. Instead, LaPorte assigned “arbitrary” designations to the inks; LaPorte Tr. 30:10 – 32:5 (he couldn’t differentiate the two inks used on the subject document other than by their color and by whether they were ball point or non ball point inks); LaPorte 33:3 – 35:12 (he couldn’t identify the components of the inks, either – i.e., the dyes, the solvents, the resins, or the trace materials); LaPorte 185:7 – 186:3 (he admitted there are perhaps twelve thousand (12,000) inks, all with different drying profiles); LaPorte Tr. 37:22 – 39:10 (there are multiple manufacturers that would have this type of ink – it could have come from a Bic, a PaperMate, or any other brand); LaPorte Tr. 105:16 – 106:12 (“you can have an extremely high level of 2-PE but then also have a lower

¹¹ Phenoxyethanol “is used in many skin care, make-up, hair care products. Because of its antibacterial properties, it is also used in baby wipes and hand sanitizer.” <https://cosmetics.specialchem.com/inci-ingredients/phenoxyethanol>

solvent loss ratio in and it just depends where the ink is in its aging process, the type of ink that was used.”). LaPorte’s work is thus unreliable.

5 LaPorte Deliberately Avoids Methods That Can Quantify His Results

Even if one credited the reliability of Mr. LaPorte’s incredulous testing methodology, forming an opinion based upon the average (or “mean”) of only two samples is extremely unreliable and likely results in significant statistical error, as even LaPorte appears to concede.¹² LaPorte testified that his process includes taking only one heated and one unheated sample from each face of the document (LaPorte Tr. 86:15 – 22).¹³ Moreover, his samples are *not random* and he doesn’t identify where he took them from. LaPorte Tr. 89:12 – 91:4 (LaPorte manually attempts to collect samples with equal amounts of ink in them using visual estimation, acknowledging how what he calls “gooping” can affect the amount of 2-PE in the samples collected, that curved lines and straight lines deposit different amounts of 2-PE, and that ballpoint pen flow rates result in different amounts of 2-PE being removed from paper during the sampling process). LaPorte admitted that since SLRs aren’t uniform over time, the rate of change between ratios over time are subject to measurement and variation or sampling error. LaPorte 151:5 – 151:25. He does not explain how he can be confident that his result for the Subject Document (an average SLR of 30.5%) is free from such errors when his result for matching ink on another document also produced from Plaintiff’s desk drawer had a SLR of only 19%. *See* fn 17, *surpra*.

¹² LaPorte has stated: “Ideally, as a chemist and as someone who has a background in statistics, I’d love to do three, four, or five. But there are practical concerns with that. So at least two.” *United States v. Tuzman*, 2017 WL 6527261, *14 (S.D.N.Y. Dec. 18, 2017).

¹³ “Selecting samples that do not have ink on the reverse side of the page would not, however, eliminate the risk of contamination from another page in the notebook, an external source, or the GC/MS instrument itself.” *United States v. Tuzman*, 2017 WL 6527261, *17 (S.D.N.Y. Dec. 18, 2017).

Conclusion

For the reasons set forth herein, the LaPorte Report and the anticipated testimony of Mr. LaPorte should be excluded in their entirety.

Dated: Garden City, New York
November 1, 2022

Respectfully Submitted,

VALLI KANE & VAGNINI LLP

By: /s/ Matthew L. Berman

Sara Wyn Kane
skane@vkvlawyers.com
Robert J. Valli, Jr.
rvalli@vkvlawyers.com
Matthew L. Berman
mberman@vkvlawyers.com
600 Old Country Road
Garden City, New York 11530
Tel: (516) 203-7180
Fax: (516) 706-0248

Attorneys for Plaintiffs

CERTIFICATE OF SERVICE

I hereby certify that on November 1, 2022 a true and correct copy of Plaintiffs' Memorandum of Law in Opposition to Defendants' Motion for Sanctions was served via electronic email on all counsel of record.

Date: November 1, 2022

/s/ Matthew L. Berman
Matthew L. Berman, Esq.